

REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Claims 17-19, 21-24, 38, 40, 42-43, 45-51, 63-64, 66, 73, 75-76, 79-80, 89, 91-94, and 96-98 are rejected under 35 USC 102 as anticipated by Stavrianopoulos patent, US 4,994,373. This ground of rejection is respectfully traversed as applied to the claims after the foregoing amendments.

Claims 17, 19 and 89 have been amended to define the oligonucleotides as “containing predetermined sequences”. Claim 18 has been amended to define the oligonucleotides as “containing different predetermined sequences”. Claims 96 and 97 have been amended to define the oligonucleotides as “having different predetermined nucleotide sequences”. These amendments introduce the same claim limitation as found in various granted independent claims in US 5,700,637 and US 6,054,270. The amendment reflects that the claimed products are useful in methods where a probe with a known sequence is immobilised in the array and the nucleic acid to be analysed is applied to the array (“probe down”).

In contrast, the cited Stavrianopoulos patent, US 4,994,373, describes products in the opposite orientation, i.e. where a nucleic acid to be analysed is immobilised on a support and a probe with a known sequence is applied to the immobilised sequence (“target down”).

None of the products disclosed in Stavrianopoulos has an immobilised oligonucleotide with a predetermined sequence. On the contrary, the immobilised sequences in the reference method are the analyte rather than the probe. Thus the amendment overcome the objections raised by the Examiner.

The Applicant respectfully disagrees with the rejection of claims 19, 21-24, 40, 42-43, 45-51, 57, 63-64, 66, 75-76, 79-80, 91-94 and 98. Each of these claims either explicitly or implicitly already require that the immobilised oligonucleotides contain known or predetermined sequences. Such feature is neither disclosed nor suggested in the cited reference.

Moreover, where the reference mentions a “parallel” analysis system, the analyte sequences are immobilised in different reaction containers, e.g. different wells of a microtitre

plate. The Applicant does disagree that different wells on a plate would be an "impermeable surface" of a support; rather, they are separate surfaces. For example, a sample applied to one well would not be able to hybridise to nucleic acids in another well, because the immobilised nucleic acids are on separate surfaces.

Thus this ground of rejection is deemed to be overcome.

Claims 17-99 are also rejected under the judicially created doctrine of obviousness type double patenting over the claims of US 6,054,270.

A Terminal Disclaimer over this patent was filed on August 27, 2001.

The foregoing amendments also correct minor informalities in the multiple dependencies of the claims with respect to claims 72, 74 and 80.

In view of the foregoing, it is respectfully submitted that each ground of rejection has been overcome, and that the application is now in condition for allowance. Accordingly, favorable reconsideration and allowance is respectfully solicited.

Respectfully submitted,

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